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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,508	10/17/2001	Jorgen Wiman	024444-954	9602

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BURNS DOANE SWECKER & MATHIS L L P
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EXAMINER

WALSH, BRIAN D

ART UNIT

PAPER NUMBER

3722

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,508

Applicant(s)

WIMAN, JORGEN

Examiner

Brian Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 11-12 is/are rejected.
- 7) ☐ Claim(s) 9, 10, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Hansson et al.

Regarding claim 8, please refer to figures 1 and 2. Hansson et al. discloses an indexable cutting insert having a polygonal shape and including an upper surface (11), a lower surface (12), and an edge surface structure (13) interconnecting the upper and lower surfaces. An intersection between the edge surface structure and the top surface forming a main cutting edge (22), a secondary cutting edge (23) and a curved corner region (17) disposed between the main and secondary cutting edges.

Hansson et al. further discloses the corner region includes a radial edge (generally shown in the area of 23 in figure 2) and a corner edge (generally shown in the area of 22 in figure 2) wherein the radial edge and the secondary cutting edge are disposed on a first side of a bisector (B) of the corner region and the corner edge and main cutting edge are disposed on a second side of the bisector. It is clear from figure 1 that the radius of curvature of the radial edge is at least five times the radius of curvature of the curved edge.

Hansson et al. further discloses the top surface includes an edge-reinforcing land (21) extending along the radial edge and the curved edge. Again in figure 1, it is clear a portion of the

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land extending along the radial edge is smaller in width than a portion of the land extending along the curved edge.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11 – ~~13~~¹⁴ are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson in view of Wiman et al. (U.S. Pat. No. 5,772,366).

Regarding claim 11, Hansson et al. discloses all of the elements as set forth in the above rejections, however, Hansson et al. fails include a planar inclined recessed surface in the corner region.

Wiman discloses a cutting insert similar to the instant invention wherein the corner regions include a planar inclined surface (11, see figures 1 and 3) that is recessed in relation to the cutting edges, the planar inclined surface including generally sine-wave-shaped edge portions disposed on opposite sides of the bisector and generally converging outwardly away from a center of the insert. (Col. 3, lines 22 – 25).

Regarding claim 12, it is clear from figure 3 that Wiman et al. discloses the planar inclined surface further includes a substantially straight primary edge portion extending substantially parallel to the edges on both sides of the bisector.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the top surface of Hansson et al. to include the planar inclined surface including the straight secondary edge portion intersected by the bisector as taught by Wiman et al. since Wiman et al. discloses the use of these elements in order to provide an integral chipformer so as to provide chips formed during machining into a desired and controllable configuration (Col. 2, lines 14 - 18).

Allowable Subject Matter

1. Claims 9, 10, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 9, numerous references in the art disclose cutting inserts with uniform land widths. McCreery discloses such a configuration for use in heavy duty cutting inserts (Col. 5, lines 30 – 32), however, since McCreery does not explicitly or inherently teach the use of the land widths in combination with the corner configuration, including the two radii, of the instant invention, it would not have been obvious to one having ordinary skill in the art at the time the invention was made to use uniform land widths in combination with this corner configuration.

Regarding claim 10, the prior art did not disclose nor render obvious a varying land width wherein the land width along a radial edge is 50-70% the width of the land portion extending along a curved edge as is set forth in the instant invention. Numerous examples of similar cutting inserts exist in the art that comprise varying land widths. Specifically, Paya (US Pat. No. 5,725,334) and Satran et al. (US Pat. No. 5,904,450) disclose the use of varying land widths,

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however none of the references in the prior art establish specific land widths at specific locations on the insert as is set forth in the instant invention.

Regarding claim 13, though Wiman et al. (U.S. Pat. No. 5,772,366) discloses what can be considered a straight secondary edge portion intersected by the corner bisector, it is clear that it does not intersect the primary edge portion to define an obtuse angle therewith. References in the art disclose similar configurations, however, they could not be combined with Hansson et al. and Wiman et al. without destroying the workability of the device.

Regarding claim 14, Wiman et al. (US Pat. No. 5,897,272) discloses a secondary straight edge on a recessed portion of a cutting insert similar to the instant invention. It is clear that this straight edge is intersected by a corner bisector, however, it is also clear that this bisector does not intersect the straight edge at a substantial midpoint thereof. Therefore, the prior art did not disclose nor render obvious this configuration of elements in a metal cutting insert.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Paya, Pantzar et al., Wiman et al. (European Patent Application No. EP 0 962 272 A1), Satran et al., McCreery, Niebauer, Maeda et al. and Wiman et al. (US Pat. No. 6,217,263) disclose metal cutting inserts with elements similar to the instant invention.

Faxing of Responses to Office Actions

3. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9302. This practice may be

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used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the Examiner.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW
March 7, 2003



Daniel W. Howell
Primary Examiner
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